MARCH 1957

ARMY INFORMATION DIGEST

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THE OFFICIAL U. S. ARMY MAGAZINE



ARMY INFORMATION DIGEST

THE OFFICIAL MAGAZINE of the DEPARTMENT OF THE ARMY

The mission of ARMY INFORMATION DIGEST is to keep personnel of the Army aware of trends and developments of professional concern.

THE DIGEST is published under supervision of the Army Chief of Information to provide timely and authoritative information on policies, plans, operations, and technical developments of the Department of the Army to the active Army, National Guard, and Army Reserve. It also serves as a vehicle for timely expression of the views of the Secretary of the Army and the Chief of Staff and assists in the achievement of information objectives of the Army.

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REGARDLESS of season, climate or geography, the tide of "battle" continues to ebb and flow as Army troops world-wide sharpen their combat readiness by realistic exercises in "ruined" villages and across rugged training areas. On the front cover, tanks and men of Seventh Army enact a street fighting scene for a training film being shot near Baumholder, Germany.

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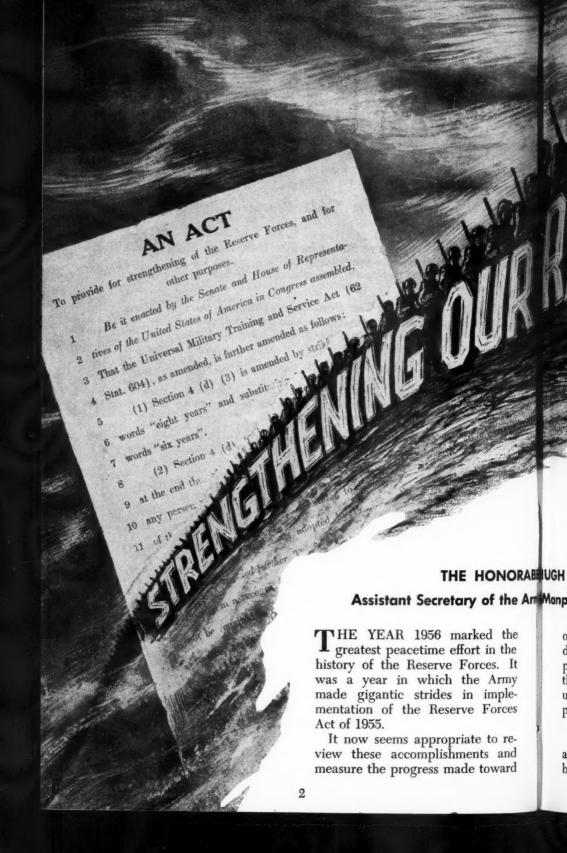
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RABBUGH M. MILTON II

e Arr Manpower and Reserve Forces)

our ultimate goal—the adequate defense of our Nation. The purpose of this report is to outline these accomplishments and to point up those areas where greater progress is indicated.

THE primary requisite for any army has been and will continue to be manpower. Training and equip-

ping men is essential; but the basic ingredient, the man himself, must first be available.

The strength of the Ready Reserve of the Army, excluding Guardsmen and Reservists on extended active duty, has been set at approximately 1,500,000 officers and men. Until 1 July 1957 only those members who participate in

the Ready Reserve are counted against this ceiling. After that date, however, the *entire strength* of the Ready Reserve must be within that limitation. Accordingly, all those who will not be available in the event of mobilization are being discharged or transferred to the Standby or Retired Reserve. The administrative transfer or elimination of those not available for mobilization is now well underway. Already some 120,000 have been transferred from the rolls of the Ready Reserve.

To attain a truly effective Ready Reserve, one in which all members participate, maximum utilization has been made of various provisions of the Reserve Forces Act of 1955. (See February 1956 Digest).

The Act requires that all personnel enlisted under its provisions participate in the Ready Reserve. This requirement, coupled with other enlistment programs, has increased the participating strength of the Ready Reserve by 100,000 during the past year. As of 31 August 1956, the total participating strength was 620,043, consisting of 403,371 members in the Army National Guard and 216,672 in the Army Reserve.

Enlistments under the eight-year program and the one-year enlistment of prior service personnel, provided for in the Act, alone accounted for more than 42,000 new participating members of the Army Reserve and 4,308 Guardsmen who volunteered for the six months active duty for training during the first year of the law.

The increased strength within the Army Reserve has provided personnel to strengthen the Ready Reserve units and, in addition, has provided sufficient personnel to meet the cadre strength requirements of the 703 additional company-sized units which were activated within the Army Reserve during the past year. These new units, manned by volunteers who have or will soon complete basic training, have greatly increased the capabilities of the Army Reserve.

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The Army National Guard continued to make significant strength gains. The Guard requires that its personnel be assigned to units and participate in training. Consequently, any increase in its strength contributes to the effectiveness of the units. During the first year under the new legislation the Army National Guard has shown a net gain of 42,682 members and 154 additional new units.

A REVIEW OF progress since the enactment of the Reserve Forces Act of 1955, reveals that desired strength goals have not yet been attained. However, the transfer of non-participants from the Ready Reserve is being accomplished, to give us the greatest proportion of participating strength in the history of the Reserve Forces. All in all, the increase for the past year is equal in strength to approximately five combat divisions. A major step has been taken toward a better trained, more ready Reserve.

In terms of total manpower the Ready Reserve strength picture is encouraging. However, the conversion of numbers of men into trained individuals and units sufficient to meet the Army's mobilization requirements must continue to receive our closest attention and unending effort. The object is to produce units which are trained,

equipped and fully capable of undertaking advanced unit training immediately upon mobilization. At the unit level, this means that each man must complete individual and basic unit training.

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Foremost among the problems in this area is the limited training time available to a reservist, as compared to the time required to produce a trained soldier. Active Army experience indicates that it requires a minimum of 700 instruction hours to produce a basically trained rifleman. Furthermore, all members of an active Army unit must complete this instruction before the organization can advance to the basic unit training phase.

A reservist, on the other hand, attending the normal 48 drills and one summer camp per year, would require four years to accumulate 700 hours of instruction. Obviously, this is too long a period if our objective is to be attained in a reasonable length of time.

One solution to this problem has been to provide means whereby the reservist can receive six months individual active Army training under the Act, thus enabling the reserve units to conduct basic unit training. This program has not been in operation long enough to produce sufficient numbers of trained men to determine whether it is the best possible solution.

As of 30 September 1956 some 6,190 men, including 2,117 National Guardsmen, had completed the six months individual training phase. The first six-month training course was initiated in October 1955, within three months after passage of the Act; thus it was April 1956 before the initial group returned to their units. (The num-

ber of trainees presently undergoing training, together with these men who have been deferred from active duty for training, accounts for the variation between the total number of volunteers and those men who have completed the basic training and have returned to their parent units.)

THE Reserve Forces Act of 1955 provided that a volunteer would be deferred from his active duty for training pending his graduation from high school. Many thousands who have elected the six-month active duty for training provision under the law are still in high school. During the past year this group has accounted for approximately 70 per cent of the total enlistments in the program. The Department of the Army further provided for a deferment of 120 days following enlistment.

Within the Army Reserve the small percentage of those who have completed individual training has been in large measure offset by implementation of the Act's provision which authorizes prior service personnel to discharge their military obligation by enlisting in a reserve unit for one year. During the period 1 August 1955 through 30 September 1956, nearly 15,000 prior service personnel started participating in the Army Reserve.

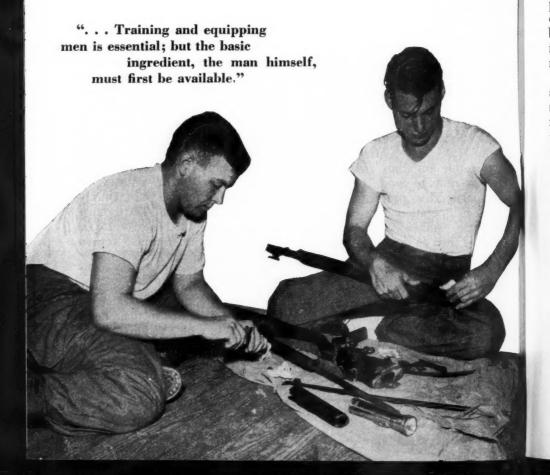
In August of this year, the first group of individuals to complete two years of active duty under the program will return to their home communities with a requirement to participate in a unit of the Ready Reserve. The flow of these fully trained individuals will be a major factor in increasing the training level of these units, and will enable

them to advance to the basic unit training phase.

So far, our discussion has dealt with only one approach to the training problem. Another more obvious approach is to reduce the amount of active duty time required for individual training. The necessity for reducing this time is especially applicable to the National Guard since it is faced with the problem of continuously conducting basic individual training. With a large percentage of basically untrained personnel enlisting

each year, and with an annual average turnover of 30 per cent of its total strength, the National Guard is faced with a continuously recurring requirement to conduct basic training.

IN measuring training effectiveness, one cannot merely compare reserve training without active duty on an hour-for-hour basis with individual training conducted while in the active Army. There is another facet which must be considered—namely, the various back-



grounds and skills of the individual Reservist which must be equated against the minimum requirements for individual training.

In order to resolve this question, the Army tested 1,000 men from each National Guard division during the summer encampment period to determine the time required to produce a trained soldier. Only armory drills and summer field training periods were utilized as a basis, together with the background of the individual soldier. The regular basic training test given the active Army basic trainees upon completion of individual training was administered to these Guardsmen. Primary purpose of the tests, it should be emphasized, was not to judge the caliber of National Guard training, but rather to equate the results of its individual basic training to the requirements of the battlefield.

Analysis of the tests points up areas where the subject schedule may be modified to insure that non-prior service personnel receive individual training in the shortest time possible.

BOTH armory and field training conducted by reserve units have shown considerable improvement. For example, the National Guard has attained 87 percent enlisted participation and 94 percent officer participation in training activities, while the Army Reserve in a drill-pay status had 75 percent participation by enlisted men, 85 percent by officers. These percentages should continue to increase with the influx of reservists having participating obligations.

With the growing pool of personnel participating in the Reserve

Program, and emphasis being placed upon their individual and unit training, the Department of the Army faced the problem of providing adequate equipment and facilities. It was recognized that without proper logistical support, adequate training cannot be conducted, and the necessary equipment cannot be issued until storage and training facilities are made available.

From the overall training viewpoint, ample equipment is available to meet the present requirements of the Reserve Forces. True, minor shortages exist throughout both reserve components, but those for the most part exist in the active Army as well.

The large amount of equipment already on hand within the National Guard was sufficient, in most instances, to meet the needs imposed by the increased strength of that component. The only material change was the additional requirement for individual weapons and equipment, both of which are in ample supply.

The substantial increase in the Army Reserve strength, however, has demanded a corresponding increase in all types of equipment and a change in methods of distribution. Formerly Army Reserve units had a small quantity of organizational equipment on hand at their home stations. Due to the lack of adequate local storage facilities and maintenance personnel, most of the Army Reserve equipment in the past was furnished on a "pool" basis.

But with expansion of the Army Reserve, it was apparent that the limited equipment on hand would not meet existing needs. Accordingly, the Army moved steadily to phase out the equipment pools and to issue equipment direct to the units wherever storage facilities and maintenance personnel were available. At the same time, aggressive action was initiated to provide additional facilities and full-time maintenance personnel.

PROVISION of adequate facilities, armories, training centers and local outdoor areas for both National Guard and Army Reserve continues to receive a high priority and will even be accelerated during 1957. The ultimate requirement for reserve component armories and training centers is expected to be 5,350. As of 30 June 1956, there were 4,399 facilities in use. However, some 2,313 of these will either have to be replaced or expanded to meet the needs of the growing reserves.

For the fiscal year ending 30 June 1956, the Army Reserve had started 61 projects and had completed 21. During the same period, the National Guard started 358 projects and had completed 186 projects.

At the end of Fiscal Year 1956, there were 1,647 administrative assistants and storekeepers in direct support of the Army Reserve, representing 89 percent of actual requirements. The need for these administrative and maintenance personnel will increase as Reserve strength increases. Generally, the Guard is not confronted with this problem.

As a result of the increased authorization for storekeeper personnel and through the construction of additional training centers, the equipment situation of the Army Reserve has materially improved. However, there are still major equipment shortages in many Army Reserve units. Efforts are being intensified to alleviate these shortages. Apparently there is sufficient equipment in depot stocks to meet the increased requirements; thus the problem appears to be mainly one of providing sufficient maintenance personnel and storage facilities.

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With an accelerated construction program and additional emphasis on civilian personnel procurement, the equipment needs of our rapidly expanding Reserve Forces will soon

be met.

IN ADDITION to the requirement for new armories and training centers, the reserve components are generating a growing demand for local outdoor training facilities. Theory and principles taught in armories or training centers must be implemented through practical exercises and problems conducted on the ground. If a unit can accomplish a portion of the applicatory phase of its training at home stations, then it can go into the more advanced stages of training at the annual encampment. For example, experience in training Reserve Forces has clearly indicated that those units which have completed rifle marksmanship training at home stations derive a much greater benefit from the time spent at summer encampment. The objective is to develop units capable of conducting the more advanced stages of training. Acquisition of outdoor facilities therefore must continue to be vigorously pursued.

A QUICK review of reserve components progress indicates that the

logistical situation is fairly well in hand and that supply in general has kept pace with operations. In addition, plans have been formulated and necessary action initiated to insure that supply lines continue to support the rapidly expanding reserves.

Viewing the overall accomplishments of the reserve program thus far, I am greatly encouraged. However, it is apparent that the Army will continue to be faced with many complex problems in attaining its ultimate objectives.

Two of these problems must be solved before our goal can be attained. First, the effective strength of the Army Reserve must continue to be increased; and second, a method must be provided to advance the training readiness of the National Guard.

The Army's implementation of the Reserve Forces Act of 1955 represents a major step in solving the strength and training problems of the reserve components. Whether or not this Act will provide the manpower needed cannot be determined conclusively at this time. While tremendous strides have been made compared to previous years, greater participating strength gains must be made in the future.

The input of trained personnel into the Army Reserves under the legislative provisions of the Reserve Forces Act appears to be the solution to basic training problems

of that component. On the other hand, no such provision existed for our National Guard. Nevertheless, the Guard, through an aggressive and vigorous campaign, has encouraged a considerable number of its members to volunteer for the six months training program.

ALTHOUGH major progress was recorded during the past year, there is every reason to believe that even greater progress can be made in 1957, including substantial advances in both strength and training stature. These expectations are based on the fact that this year should witness a tremendous surge in the strength of the Ready Reserve as young men who have completed two years or more active duty return to their home communities to participate in units of the Ready Reserve.

Preliminary estimates indicate that more than 110,000 fully trained men can be expected to augment the participating ranks of the Reserve components in the twelve-month period beginning in August 1957. The impact of this large group on our Army Reserve will be perhaps the most significant step since the inception of the Reserve Forces. It is therefore with confidence, anticipation and enthusiasm that the Army proceeds into another year of efforts to develop truly ready Reserve Forces to protect our Nation.

Young men, their families

and local communities

are all affected by the long-range

impact of the Reserve Forces Act on

OUR NAT





The Honorable Overton Brooks

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THE HONORABLE OVERTON BROOKS is Vice Chairman of the House Committee on Armed Services, and Chairman of its Subcommittee No. 1, which has primary interest in Reserve affairs, Congress of the United States. AFTER 170 YEARS, our Nation is at last heeding the advice of George Washington, one of many Americans who have been firm advocates of a policy of readiness.

In a letter written to the Chairman of a Congressional Committee in 1789, Washington expressed his

at certain appointed times to be employed whenever it may become necessary in the service of their Country."

OUR generation, living in a period of uneasy peace, knows the value of these words. We know

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views in these words:

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"It may be laid down as a primary position, and the basis of our system, that every citizen who enjoys the protection of a free Government, owes not only a proportion of his property, but even his personal services to the defense of it, and consequently that the citizens of America (with a few legal and official exceptions) from 15 to 60 years of age should be borne on the Militia Rolls, provided with uniform arms, and so far accustomed to the use of them, that the total strength of the Country might be called forth at short notice. They ought to be regularly mustered and trained, and to have their arms and accoutrements inspected

from past experience that we must never allow our strength to be dissipated so low as to invite a repetition of past invitations to disaster.

Too many of us know that dictators who seek world conquest count on the recurrence of public apathy which has handicapped us in the past. Many of our citizens are therefore firmly resolved that we must remain strong in order that we may remain free—and are ready to take any reasonable measure to insure that strength.

Today, all together, 40 per cent of the total strength of our U. S. Army is stationed overseas. Despite recent policy decisions affecting its size, the Army continues to retain all its vital roles and missions on

the periphery of the free world's defenses—on the edges of the Iron and Bamboo curtains. Immediate prospects point to continued deployment abroad of the bulk of the Armed Forces.

At home, the fast reduction of personnel has obliged the Army to re-emphasize the importance of perfecting its mobilization base—the foundation stone upon which, in time of emergency, must be built the civilian-soldier forces required for ultimate victory. Today, indeed, reserve power is the key to security.

AT THE end of 1955, the most far-reaching set of Government initials to billow out of Washington since the N.R.A. of the alphabetized New Deal days was R.F.A. Now, in 1957, few people remain unaffected by these letters, and even fewer fail to comprehend the full meaning of the Reserve Forces Act of 1955 (Public Law 305—84th Congress).

The latest development to underscore the meaning of R.F.A. is the rise on the local scene of Army reserve training centers. There will be 1,765 of these built or programmed in towns and cities across

this country by 1960.

Reaction to this construction has varied by community. In some places there is resistance; in others these new local developments are warmly received with a noncommercial fervor which proves that patriotism in America is not dead in the small cities and towns.

In one community, the town fathers offered the center of their common for the construction of the training center. In another the town leaders simply marked a map indicating all municipally-owned property and invited the Army to take its choice. Other towns recognizing the need for a strong reserve and motivated by patriotic spirit simply granted the land outright without charge to the Army.

Truly the Reserve Forces Act which passed the Congress with little or no public clamor in August 1955, is now touching every strata of American social, political, and economic life. So far-reaching is the law that those in the Pentagon most closely associated with its implementation describe it as a "new way of life for America."

Boyd Campbell, formerly president of the U. S. Chamber of Commerce, said, "Directly or indirectly, the Reserve Forces Act of 1955 will affect the personnel and labor relations policies of every American business enterprise. . . . For a year or two it may create more problems for employers than it solves. But its long-range effects upon industry's ability to expand its output in time of national emergency should be favorable."

If this can be considered a gauge of the economic impact the Reserve Forces Act is having, then the impact on the sociological structure is best measured in the following startling manpower statistics. By 1960 the Armed Forces plan to have 7.7 million men in some form of readiness—2.8 million in the active forces, 2.9 million in the really Ready Reserve, and 2 million in the Stand-by Reserve.

AN additional impact is found in the fact that the new law has taken the inequity and guesswork out of military service; it gives both the eligible young American and his employer a chance to plan ahead and know just how he stands with Uncle Sam.

Mothers and fathers, dreading for years the day the young teenager would be eligible for the draft, are now in a position to counsel him on any one of about thirty draft-deferred military options running from six months of active duty and 7½ years in the Ready Reserve to entrance into the several military academies. The young couple who plan to marry and raise a family can now proceed as can the Rock-n-Roll set with their Saturday night plans. All this is made

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in en of ne possible by the wide choice of military service now offered to young men who become eligible for military duty.

A man can still sit around and wait for the draft if he chooses (and his chances of beating it are slim today) or he can choose his own service.

In the case of the young man aged 17 to 18½, the Act includes a special provision which allows him to enlist in an Army Reserve unit and then enter the Active Army for six months followed by 7½ years in the Ready Reserve. In this program, the Army encourages the

"... some 43,000 teen-agers
were taking advantage of the
six-month provision of the
Reserve Forces Act of 1955."



man to enlist now, finish his high school education, and then take his six months active duty. This program, which has already attracted approximately 43,000 youngsters to the Army through mid-December 1956, offers the least interruption to a young man's plans. Opportunity under these provisions is limited to 100,000 annually.

A FURTHER impact of the Reserve Forces Act is on the community scene. Here it means that one night each week a throng of young males gathers at the nearest Reserve Training Center to attend drill. Before the magic initials R.F.A., a Reservist could take or leave this part of his military obligation, depending upon his personal feelings. Now 48 drills and two weeks of camp each year are a *must*.

Furthermore, the Act has the teeth with which to correct those few instances where a particular young man fails to meet his obligation under the law. It is prescribed that if a Reservist having a part of his total obligation to fulfill ". . . fails to, satisfactorily, as a member of such Reserve . . ." he will be ordered to active duty. This is one of the authorizations in the Act which transforms the Nation's Reserve Force from a huge unwieldy organization into a controllable force—a force expected, by 1960, to be a truly Ready Reserve.

In the past, men who had been in the service either by draft, through volunteering, or by virtue of commission, felt no strong obligation to participate in the Reserve Program after being separated from active service. Even though these men had a total active-duty and reserve obligation from six to eight years, there was no compelling force in the law which required them to fulfill the Reserve portion of their service.

In the Army alone, this situation brought the Reserve strength close to two million; but of that total only a relatively small group actually participated in Reserve activities. The magic date, 9 August 1955, changed all this. Every young man entering the service after that date—no matter what the conditions, draft, volunteer, or commission—has a mandatory Reserve obligation to discharge.

AS OF 30 September 1956, there were 218,000 Army Reservists in paid status. By mid-December some 43,000 teen-agers were taking advantage of the six-month provision. Considering that the Army Reserve has yet to enjoy the first input from the active Army beginning next fall, this is more than a moderate beginning for the Ready Reserve.

The Ready Reserve now means what the name implies. Those assigned in this component have an obligation. They are paid for this obligation. There are now more than 5,400 company-sized U. S. Army Reserve Units in being with strength running from about one dozen men to 100 men per unit.

Maintaining a Ready Reserve means training the Reservist in his home town, and to accomplish this 167 training centers are under construction or have been completed, not to mention the thousands of leased facilities in local communities. This means more money in the local community—money which is classified as "spendable." It is

that kind of money, looked upon as "extra," which the Reservist is more inclined to spend freely on the local economy rather than computing it in the over-all family budget. The amount involved is something over \$25,000 per year for every 100-man unit.

All over the country, suburban and city folk are getting accustomed to seeing more men in uniform at least one night each week. This is being looked upon as a healthy sign of security rather than a war scare. It is encouraged by the community fathers and law enforcement agencies alike.

Already in some areas, and increasingly so in others, the Reserve unit is an integral part of the local scene. In smaller cities and towns the Army is making available Reserve Training Centers for local civic and social gatherings. In at least one town the center is used by two religious denominations every Sunday.

The happy by-products of developing and maintaining effective Reserve Forces are fellowship and citizenship. Those who know the law and know the Army are convinced that the community will gain more mature, stronger, wiser, and more experienced men as a result of this program. Military discipline will prepare Reservists more adequately for their roles as citizens and leaders in local affairs.

There is no longer any question about the fact that the civilian soldiers of today are the backbone of our security. Indeed, Reserve power is the key to national security. There is also no question about the fact that the initials R.F.A. have been and are now having a tremendous impact on the

economic and social structure of our American communities. It is a healthy impact, one in keeping with the great traditions of American life.

THIS last impact is rightly considered by some to be the most important of all because, in essence, it explains the why and the need for R.F.A.

Because threat of armed aggression against the United States may continue indefinitely and because of the inability of our economy to support indefinitely a large standing force of sufficient size to deter this threat of aggression, the need for a strong, well-trained and well-equipped Ready Reserve Force has become apparent and essential to the long-term security of the United States.

In this Atomic and Hydrogen Era, our Nation cannot depend upon resistance by allies to give us time to train large citizen forces after an emergency arises. Accordingly, we must rely upon a large, strong, combat-ready Reserve to provide for the national security. In some respects it is an insurance policy that we have to take out to safeguard our children and theirs to come.

It is a safe assumption that our potential enemies are astute as they are ruthless; they will risk a general war only when they believe they can win a speedy victory at relatively small cost to themselves. Consequently, our whole defense program is shaped to discourage aggression by making it an unprofitable undertaking for the aggressor. This at heart is the enduring contribution and major impact of the Reserve Forces Act.

NEW MEASURES TO IMPROVE RESERVE COMBAT READINESS

IN COMPLIANCE with directives from the Department of Defense, Secretary of the Army Wilber M. Brucker has announced new measures to improve the combat readiness of the Army Reserve components, including a requirement that all non-prior service enlistees in the Army Reserve components must receive a minimum of six months active duty for training.

The new policy, which becomes effective 1 April 1957, will not affect any enlistee in the Army Reserve components who is enrolled before

that date.

In making the announcement, Secretary Brucker stated that the Army has made much progress in improvement of the Reserve Force under the Reserve Forces Act of 1955, and that these measures are part of a continuing program to further improve their effectiveness.

THE six-month training provision, recommended to the Secretary of the Army after careful study by the Army Chief of Staff, calls tor a realignment of the enlistment incentives under the Ready Reserve program. At present, for the Army National Guard, a man between the ages of 17 and 18½ can enlist and then is obligated to continue his training until age 28. Under the new program, an Army National Guard enlistee takes six months' active-duty training, and is required to serve only an additional 4½ years in the Army National Guard, in order to be eligible to be transferred to the Standby Reserve for an additional three years. This latter period requires no training attendance.

At present, all volunteers for the Army Reserve must take six months' active-duty training, and then serve 7½ years in a Reserve unit. Under the new program, he will have the same obligations as the Army National Guard enlistee: six months' active duty training, then an additional 4½ years with an Army Reserve unit, followed by a 3-year obligation

in the Standby Reserve.

ANOTHER measure affects the enlistee who completes his normal two-year training with the Army voluntarily or under the Selective Service Act. If the man has a remaining Reserve obligation, he can volunteer for a unit of the Army National Guard. Normally, at the completion of his active service, the Army would have assigned him to an Army Reserve unit, since the men for the Army National Guard units must be volunteers.

Under the new instructions, the Army will not assign the man to an Army Reserve unit for a period of sixty days, during which time the Army National Guard is free to recruit and enlist him for the remainder of his Ready Reserve obligation. At the end of sixty days, if the man has not been enlisted by the Army National Guard, the Army assigns him to an Army Reserve unit.

Five years later, aliens enlisted under the Lodge Act provide the Army's

NEW CITIZEN SPECIALISTS

Lieutenant Colonel Leonard P. Sullivan

▲S THE color guard advanced, A a small group came to attention in the spacious, modernistic Ceremonial Room of United States District Court, Washington, D. C., Judge Burnita Shelton Matthews presiding.

Central figures in the group were eleven young men, some in uniform, some in civilian clothes. Looking on were an Assistant Secretary of the Army, a lieutenant general, a colonel, several other Army officers, Immigration and Naturalization officials, news pho-

tographers.

The eleven men standing at attention were about to take the solemn oath of allegiance to their adopted country, which they had already served for five years as soldiers in the United States Army. The Department of Army officials and others were there in place of the usual crowd of relatives and friends who attend such ceremonies -for most of these men have no relatives in the United States; some have none anywhere.

These young men were the first group of a thousand or so young

foreign nationals who five years ago joined the Army under Public Law 597–81st Congress, commonly known as the Lodge Act. (See "These Aliens Also Serve," November 1951 Digest.) Others who have become eligible after five years of service will be taking the oath of allegiance at various courtrooms throughout the country during the next few years.

Brief talks were made at the initial ceremony by Assistant Secretary of the Army George H. Roderick and Lieutenant General Walter L. Weible, Deputy Chief of Staff for Personnel. A representative of the Immigration and Naturalization Service moved for changes of name of four or five of the men-done both to Americanize their names and to protect families still behind the Iron Curtain.

The preliminaries concluded, a court clerk stepped forward and read the Oath of Allegiance to the group. With right hands upraised, they repeated the ringing phrases that "... I absolutely and entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty of whom or which I have been a subject or citizen; that I will support and defend the Constitution and the laws of the United States of

LIEUTENANT COLONEL LEONARD P. SULLIVAN, Adjutant General's Corps, is assigned to Operations Branch, The Adjutant General's Office, Department of the Army.

America against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same . . ."

Then the new citizens and the audience joined in the Pledge of Allegiance to the Flag. The color guard retired. The photographers and newsreel men moved in.

For the eleven men, their dreams and striving for the past five years had come true. Some of them, having completed the requisite period of service, have decided to leave the Army but most of them—including two who have become officers in that comparatively short span—will make the Army a career. All had attained E-5 status or higher during their Army service.

For the Army, another experiment in creating good citizens as well as good soldiers had proved

successful.

AS A result of Army participation under provisions of the Lodge Act, the Nation has acquired several hundred career soldiers who are familiar with the cultures, folkways, geography and local life of various countries—knowledge which could be vital in case of future war.

This idea had been propounded by Henry Cabot Lodge, Jr., who as an officer on the staff of General Jacob L. Devers during World War II had a good opportunity to observe the problems of communications with both friendly and captured enemy soldiers. Later as Senator he sponsored Public Law 597.

This law authorized the Secretary of the Army, with concurrence of the Secretary of State (a necessary move because of foreign policy considerations involved) to enlist

unmarried male aliens, without dependents, in the Regular Army for a period of five years. At the end of such honorable service, they become eligible for immediate naturalization as United States citizens, Originally passed in 1950, the effective period has been extended until 30 June 1957.

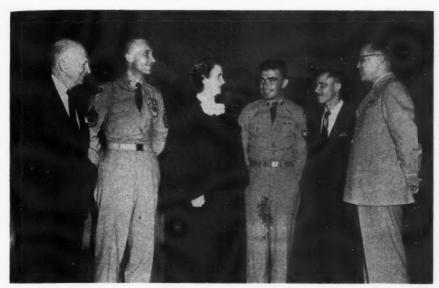
During hearings on the bill, some criticism was levelled by those who feared that the proposal implied that this Nation could not provide sufficient citizen manpower, or that the United States was being forced to "hire foreign mercenaries."

But Senator Lodge and Army authorities dispelled these notions by showing that the need was not for "bodies" but for specialized knowledge and skills which ordinarily would require many years and much expense to teach to a native-born American lacking foreign background or experience. And languages, it was pointed out, are practically impossible for an adult to master without an accent.

The Lodge Act specifically provided that enlistees would be integrated into established units, not separated into special units. This avoided any concept of a "Foreign Legion" and also offered the alien soldiers every opportunity to assimilate American manners, customs and thinking through constant daily association with native-born young Americans.

The Army is the only service to which the Lodge Act applies. Soon after its enactment, the first group of young aliens was sworn into the Army at Sonthofen, Germany. They—and all who later were accepted—were screened carefully.

ONLY single men between 18



Three of the new citizens receive congratulations from the Honorable G. H. Roderick, Judge Burnita S. Mathews and Lieutenant General Walter L. Weible.

and 35, without dependents, are eligible. Mental tests administered are the non-language equivalent of the Armed Forces Qualification Test. Physical standards are the same as for Regular Army enlistees.

All applications are reviewed by a testing board in Germany. Past military experience, knowledge of English, education, special skills are taken into consideration. Screening of personal histories for security purposes is very thorough. Background, conduct, past affiliations and all other available data are closely checked. Of the total number of applicants, only one in ten has been accepted.

After taking the oath and becoming members of the United States Army, the men are given elementary military training and indoctrination while awaiting shipment to the United States. They are now sent to Fort Jackson, South Carolina (previously to Fort Dix, New Jersey) for reception and basic training. They also receive instruction in Citizenship, American History and English, all designed to enable them to be more efficient members of the Army while preparing themselves for citizenship.

How well the entire program has succeeded may be seen in the fact that of the first eleven who became citizens, five are still in the Army and intend to make it their career, while four others indicated that they are planning to reenlist. All but one came from countries now behind the Iron Curtain. Some still have relatives there and because of the possibility of reprisals that might be directed against them, names of only three have been publicly announced.

TYPICAL of the histories of

these former displaced persons is Sergeant First Class Michal Kremar. When he vowed to "entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state or sovereignty" he knew perhaps better than most exactly what such subjugation involves in many parts of the world today.

Born in Czechoslovakia in 1929, he left school in 1943 to help support his family. When the Communists took over his homeland in 1948 he was charged with "making more money than the average person and . . . capitalistic tendencies." As a result his automobile was confiscated. Later when he refused to leave his job as waiter in a hotel restaurant to report for work in a

coal mine, he was jailed.

Still later he was captured after a battle with border guards while helping Czechs escape across the border. He was tried on charges including murder and conspiracy to overthrow the Red government, and sentenced to 18 years in a Russian uranium mine. There he worked 18 hours a day in waist-deep water, on two small meals a day—breakfast of black coffee and a slice of coarse bread, dinner, a bowl of soup with one potato.

After six months he and a group of friends escaped through an old tunnel. He walked 470 miles to Slovakia, traveling at night, eating what he could find in gardens. After 26 days he reached Slovakia, found friends, but decided to try for West Germany, 180 miles away.

There he finally found shelter in a DP camp in Nuremberg.

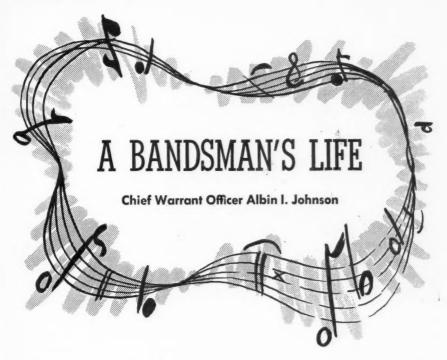
Sergeant Kremar took his basic training at Fort Dix, New Jersey, then went to parachute school at Fort Benning, Georgia. Now with more than 60 jumps to his credit, he is assigned to the 101st Airborne.

BECAUSE eligibility for citizenship was one of the major incentives to original enlistment, the Army is rendering every assistance to those who qualify. Shortly before each man's term of service expires, he receives a personal letter from The Adjutant General, and commanders at all echelons are responsible for aid and guidance to candidates in their jurisdictions.

At the first ceremonies, Senatornow Ambassador—Lodge sent a telegram which was read by Assistant Secretary of the Army Roderick in the course of his remarks: "These men possess languages and other knowledge which can make them of priceless value in time of emergency. . . . Congratulations to them on becoming American citizens."

Citing these new citizen-specialists' outstanding performance, including past combat service in Korea by many of them, the Deputy Chief of Staff for Personnel outlined the deep concern initially expressed by responsible authorities that the experiment should be successful, and concluded, "You men are living proof of the success of this program."

There's more than parades, concerts and ceremonials behind the scenes in



"G IVE me the life of an Army Bandsman. Man, have they got it made!"—so wisecracks the uninformed observer, his impressions gained from watching a single military ceremony or parade. Actually, following the Fifth Army Band stationed at Fort Sheridan, Illinois, for even a brief period quickly dispels any such notions.

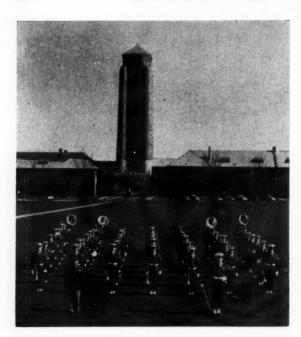
As with similar Army units, there are no slots in the Band's authorized Table of Allowances for personnel other than musicians. Consequently, all additional duties such as First Sergeant, Drum Major, clerk, training NCO, K.P., librarian, bus driver, vocalist, actor, announcer, supply sergeant and

general details must be handled by the Bandleader and his enlisted bandsmen.

The bandsman fits all these extra details into an intensive schedule; he seldom has a holiday or a weekend off unless he's lucky enough to be spared for a short leave of absence. Often the band will be en route to an engagement before Reveille and return to the post after Taps have sounded.

NOT every volunteer can qualify for this assignment. Before he can become a member, the applicant is auditioned by the bandleader as to his musical ability, general appearance and personality. After passing these preliminaries, the young musician is given a letter of acceptance which allows him to go to his local recruiting office and

CHIEF WARRANT OFFICER ALBIN
I. JOHNSON is Commanding Officer
and Bandleader, Fifth Army Band, Fort
Sheridan, Illinois.



The Fifth Army Band stands formation at Fort Sheridan, Illinois. The author is at front left.

enlist for a minimum of three years.

Initial assignment to the band is assured by the Army upon completion of the eight weeks Infantry Basic Training Course. Even after being assigned, it is likely that a few will be levied for overseas commands as the musical needs of the Army may require. A few also volunteer for choice assignments such as the 7th Army Symphony Orchestra in Germany, the three Special Bands of the Army (the West Point Band, the Army Band and the Army Field Band), or for special areas throughout the world where bandsmen are needed. However, most of the men remain with the band through their entire enlistment.

The Fifth Army Band's primary mission is to represent Fifth Army Headquarters throughout its thirteen-state area at parades, concerts, rodeos, fairs, carnivals, con-

ventions, festivals, civic affairs, colleges and secondary schools. In 1955 the band traveled more than 18,000 miles to these varied engagements, playing before more than two and one-half million people, not including the millions of listeners weekly over WGN and the Mutual Radio Network.

WHEN the band is not on the road for an engagement, it may be found on the drill field perfecting the military marching precision for which it is noted. Innumerable hours will be spent in preparing special programs for future concerts, weekly radio and TV appearances, chorus rehearsals, and mandatory training subjects as required by the Department of the Army.

Music arrangers will be busy preparing special arrangements and scores. Librarians and copyists will be busy cataloging, repairing and keeping music in readiness for future engagements. Clerks will be preparing morning reports and the numerous other reports required by various sections of the post and Army Headquarters. The supply section will be occupied with maintaining instruments and uniforms. The drum majors will be drilling newly assigned men to fit them into the marching unit as quickly as possible.

Meanwhile the first sergeant, in addition to blowing his horn, will also be laying down the law as to barracks details, K.P., haircuts, shoe shines and the hundred and one other duties that the first sergeant normally must do. Other bandsmen will be rehearsing with their section leaders or preparing equipment for inspection. Dance combos will be practicing new tunes and arrangements for dances at the Service Club, NCO and Officers' Clubs.

Minor repairs and maintenance—including landscaping the area—are handled by the bandsmen themselves. Those off duty may be found watching TV in the unit

day room, reading the latest newspapers and magazines, playing table tennis, engaging in photography and recreational pursuits in the hobby shop—all under one roof in the band building.

A bowling team of band members is currently leading the Post Bowling League. Other bandsmen will be found studying USAFI or college courses available on-post or at nearby colleges. Others study with studio and symphony musicians so that they may become even better musicians.

Many of the "graduates" of the Fifth Army Band have found their way into the professional world as musicians, arrangers and entertainers. The majority, however, have continued their musical studies and are now teaching in colleges and schools of the United States. Others have reenlisted in the band because, added to the advantages of an Army career, their job is interesting and never lacking in excitement. For the career musician, service to one's country and one's art are combined.

UNDER CHANGES as outlined in AR 601–228, local Army Recruiters now may arrange for a civilian musician applicant to be auditioned by the bandmaster of a nearby Army Band, preparatory to enlisting as bandsman, and receiving training at the Army Element of the United States Naval School of Music after finishing basic combat training. If the applicant passes the audition, he receives a letter containing his score and a recommendation that he be enlisted into the Regular Army as an unassigned bandsman. At the School of Music in Washington, D. C., training is given in everything from dance orchestra fundamentals through theory, harmony, ear training, symphonic literature, and concert band techniques. On graduation, Army personnel are assigned to one of the Army bands.

BATTLEFIELD

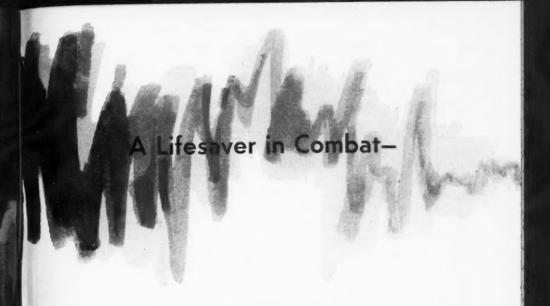
REPAIR

OF

BLOOD

VESSELS

STARKMAN



Lieutenant Colonel Carl W. Hughes

MAN'S circulatory system is made up of the heart and blood vessels, which fulfill three major functions—transporting substances such as food, oxygen, mineral salts and hormones to and from the cells of the body and removing wastes; protecting the body against infection by furnishing antibodies and cells to combat disease; and helping to regulate body heat.

The circulatory system contains approximately five quarts of blood, made up of millions of cells carried about in a fluid medium. Each individual is said to contain enough blood cells that, if placed side by side, they would reach around the earth four times. These cells are of three major types—red, required for carrying oxygen; white, important for combating disease; and the platelets, which are involved in blood clotting. The liquid part of the blood is the plasma.

LIEUTENANT COLONEL CARL W. HUGHES, Medical Corps, is a staff member of Division of Surgery, Walter Reed Army Institute of Research, Walter Reed Army Medical Center, Washington. Blood is forced throughout the body by a four-chambered muscular pump, the heart. Blood vessels are the pathways which enable the blood to reach all the millions of body cells.

There are three kinds of blood vessels-arteries, veins and capillaries. An artery is a vessel which carries blood away from the heart; and all arteries, except those to the lung, carry oxygenated blood. Veins, on the other hand, carry blood toward the heart; and all veins, except those from the lungs, carry deoxygenated blood. Capillaries are microscopic vessels which carry blood from the small arteries to the body cells and return it to the small veins. These capillaries have walls only one cell thick. The walls of the veins are of intermediate thickness; they do not have to withstand the blood pressure required of arteries.

Arteries are muscular tubes, constructed to withstand the pulsating pressure of the blood within. As they continue branching, however, they become smaller and the walls

thinner. It is these arteries which are a primary subject of interest to the Army surgeon.

THE BODY is so constructed that most of the important structures are protected—the brain within the skull, the heart and great vessels within the rib cage. In a similar manner, the large vessels of the arms and legs are protected by being on the innermost sides of those extremities.

Even so, with the present day high velocity missiles of the battle-field and high-speed automobiles, no part of the body is safe from injury. Most patients with injury to the large vessels of the chest and abdomen do not live to reach medical care. But those with injuries to blood vessels of the extremities can be aided by the latest advances in surgery.

Blood vessel injuries may be encountered as a result of battlefield wounds, automobile and train wrecks, knife wounds, and lacerations by glass or bone splinters. Bruising of the vessel with spasm or compression and clotting within the vessel are other forms of injury

that may be encountered.

When an injury opens a large vessel, obviously profuse hemorrhage will result. The immediate treatment is control of such hemorrhage. The simplest method is the use of the fingers to compress the bleeding vessels, at least temporarily until other more permanent methods of control can be employed. The preferred method of control of hemorrhage is the application of a pressure dressing. In some instances open wounds may have to be packed with gauze to control the hemorrhage.

When these methods of control are unsatisfactory or not applicable, a tourniquet may be used. The tourniquet, however, can be extremely dangerous. Even when properly applied, it cuts off all blood supply to the extremity. Once a tourniquet is properly applied, it should not be loosened at intervals but left in place until it can be removed by a physician where blood or plasma substitutes are available to treat the patient.

Regardless of the type of control used, the patient with a blood vessel injury is a candidate for urgent medical care. To the patient with a broken bone, emergency medical care is of equal importance. The ends of broken bones, if moved about, often injure large blood vessels; and it may happen that an individual may bleed to death within his own thigh without any external evidence of blood loss other than swelling of the thigh.

A patient with bruising and spasm of a large vessel, compression of a vessel or clotting within the vessel is also a candidate for immediate care. While an individual with a closed vessel injury is in no danger of losing his life from hemorrhage, he does stand a chance of losing the extremity if aid is not promptly supplied.

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Treatment of these lesions varies with the type of injury, but in any type the objective is to restore arterial blood supply to the extremity as soon as possible.

THE ANCIENTS recognized the need for reconstruction of injured blood vessels and attempted to repair them with turkey quills and hollow chicken bones. Investigators early in the 20th century demon-

strated methods of blood vessel repair, some of which were applied in World War I. Investigators in World War II compiled data on approximately 1600 cases with blood vessel injuries in which the vessel was tied. The amputation rate in these patients was approximately 50 per cent, due to gangrene which occurs when the blood supply is destroyed.

The same investigators reported 144 minimal cases in which repair of the vessels was attempted by means other than tying. In these amputations ran to 44 per cent.

Successful repair of seriously injured blood vessels became a reality during the Korean conflict. The discovery of new antibiotics and development of improved arterial clamps, coupled with the experience gained during both World Wars and after, all contributed to the successful treatment. Vascular research work at the Walter Reed Army Medical Center contributed immensely to this success. The rapid evacuation of wounded men by helicopter and the fairly stable battlefront of the Korean War were also key factors.

Early in the Korean War it was found that approximately one injury out of every 100 involved a major vessel—a rate similar to that in World War II. However, in the latter part of the Korean War, blood vessel wounds averaged more than two out of every 100

injuries.

Members of the Surgical Research Team from the Army Medical Service Graduate School of the Walter Reed Army Medical Center taught, supervised, and demonstrated primary repair of injured vessels, often at the operating table

where such injuries were undergoing surgery.

With the development of vascular surgery in the Korean theater, the overall amputation rate was reduced to 17 per cent for the entire theater during the last year of the war. Even this figure could have been improved if some of the patients could have been returned from the front lines sooner after injury.

Indeed, the time span which may elapse from injury to repair of a blood vessel is an all-important factor in salvaging limbs. Delay in the treatment of shock further jeopardizes life as well as limb.

In cases where blood vessel injuries leave the limb completely devoid of blood supply, the limb cannot survive for more than 2 to 3 hours. In many instances, however, the limb's lesser vessels continue to carry a limited supply of blood. For this reason it is impossible to say how long an extremity will survive.

AN EXTREMITY with a tourniquet tightly bound about it has less chance of surviving than the extremity which has bleeding controlled by application of a pressure dressing. The pressure dressing properly applied allows a limited blood flow through the lesser vessels which otherwise may be occluded by a tourniquet.

The time before an extremity becomes irreversibly damaged depends on many variables such as the size of the wound, the particular artery injured, severity of shock, and surrounding temperature. A damaged extremity has a better chance of survival during cool weather than during hot weather.

Heat should never be applied to such a damaged extremity.

Time also is an important element in care of the wound. While all traumatic wounds are contaminated, actual infection does not occur for about six hours. If severe infection is present, the blood vessel cannot be repaired.

When there is doubt as to whether or not the patient has a large blood vessel injury, any existing bleeding should be controlled and the patient moved to a hospital as soon as possible.

One major precaution must be taken. Patients with injury to a large blood vessel have usually bled severely and will often be in shock. Improper handling may result in loss of a life in the attempt to save a limb.

Patients in shock from blood loss are usually cold, may be moist and clammy, are usually thirsty and the pulse is usually weak and rapid (over 100 per minute). These patients are usually conscious, but may be pale, weak and short of breath. After bleeding is controlled, it is most important that these patients be given whole blood, plasma or other replacement for their blood loss.

Patients in shock must be handled gently; they should be moved as little as possible and no attempt should be made to have them stand or sit. The patient should be kept flat or with the head slightly lowered. Enough warmth should be applied to prevent shivering. If any broken bones exist, the bones must be splinted. Moving patients about with fractures unsplinted may add to the shock, perhaps tearing other vessels and increasing the blood loss.

Once the patient is in condition to be moved, he should be transported to a hospital as soon as possible, where a thorough examination will be required to determine that he does not have other wounds which have priority for surgical care.

IN ORDER to repair blood vessels properly, the damaged portion of the vessel must be trimmed away and proper vascular clamps applied to hold the vessels and to control them. The vessels are then repaired using a very fine braided arterial silk.

The type of repair depends on the type of injury. When only a small portion of the vessel has been lacerated, it is sometimes possible to simply repair the cut in the vessel wall with silk sutures. In other instances the vessel may be completely severed and badly damaged. In such cases the damaged portion must be cut away and the open ends of the vessel sutured together. This is the preferred type of treatment.

If a large segment of the vessel has been destroyed, it is often impossible to bring the ends together. The insertion of a graft is then required to repair the vessel.

A commonly used graft is one of the patient's own veins. While the veins are thinner than the arteries, vein grafts can be used to replace a segment of artery in the extremities where the vessel is supported by surrounding muscle and other tissues. There are certain excess veins in both the legs and arms which may be removed without harm to the patient to replace segments of damaged arteries. But when such vein segments are used,

they must be turned end-for-end from their normal position because they contain valves which would stop the arterial flow if the graft is not reversed.

Some surgeons prefer the use of the patient's own veins to replace arterial segments rather than using artery grafts from other individuals. When vein grafts are taken for use in the same individual, the cells in the veins continue to survive. Artery grafts from other individuals normally do not survive after transplantation but furnish a framework into which the patient's own tissue grows to form a graft.

The use of the patient's own vein has another advantage in that regardless of where the patient may be when injured, his veins are available for use without depending on an artery bank. This is particularly true on the battlefield but even so, the size disproportion of the vein to the artery offers some disadvantages.

Some surgeons prefer to use arterial grafts which have been taken from individuals who have died. These grafts are stored in an artery bank. The procurement of grafts sometimes proves to be a problem in large hospitals but becomes less so on the battlefield.

Some blood vessel grafts are taken under sterile operating room technique and kept sterile throughout the preservation period. Other grafts are taken in the autopsy room and later sterilized by high voltage x-ray or chemicals.

ARTERY grafts may be preserved by several methods. They may be preserved in a nutrient solution which contains chemicals similar to that of the plasma from

the blood stream. In this solution they are kept under refrigeration at 4°C and are good for use for 30 to 40 days. This method may be utilized on the battlefield where grafts are plentiful, provided there is ample refrigeration to keep the solution at a proper temperature.

Other such grafts are quick-frozen immediately and kept in sterile containers in deep-freeze for indefinite periods. To be practical on the battlefield, this method would require the presence of dry ice or a deep freezer. Other grafts are preserved by quickly freezing and then drying by withdrawing all moisture by a vacuum pump. The grafts are then sealed in ampules under a vacuum and may be stored for months at room temperature. Grafts preserved in this manner can be moved about with ease.

Many other methods of storing grafts have been utilized such as preserving in alcohol, formalin and chemicals. The search continues.

AT present research is in progress in an attempt to discover new vascular graft materials which may be utilized under all conditions. Many materials have been investigated for their usefulness as blood vessel graft replacements. These include tubes of glass, plastic, metal, plastic sponge and many other substances.

It has been shown that grafts made of mesh or woven materials are preferable. At present, grafts of orlon, nylon, dacron and other woven plastics are being used. The earliest forms of these were made of cloths available on the shelves of department stores. The first grafts were cut from cloth and sewn on a regular sewing machine, form-

ing tubes of various sizes.

Now that the usefulness of these woven plastics has been proven, the material is being woven in tubular forms of various sizes ready for use. These grafts work very well in the larger vessels but are not as satisfactory when used in the smaller vessels. There is also danger of using these artificial grafts in acute wounds because of an ever-present danger of infection.

GREAT strides have been made in the field of blood vessel surgery in the past ten years. Some of these have been the result of overall advances in the field of surgery while some are a result of the war. Military investigators have contributed substantially to these advances. As a result, loss of limbs from vascular injury on the battlefield has been reduced from 40

percent to 17 percent. Even this figure can be improved.

Here again is an example of the way research often pays for itself. Advances in battlefield repair of injured blood vessels have prevented the anguish and disability which might have resulted from limb loss; and they have salvaged many individuals for future military usefulness. Disregarding the priceless value of an extremity to the individual, it has been estimated that the expense of hospitalization. furnishing artificial limbs and retiring each individual with loss of a leg costs the Government approximately \$150,000. Since there are known to have been two to three hundred extremities saved by repair in the Korean War, the savings to the Government in this area of research alone ranges into the millions of dollars.

Pictures on Plastic

A NEW photo-sensitive plastic which is almost unaffected by gamma rays, needs no chemicals or darkroom, and can be developed by baking in an oven, has been developed by the Army Signal Corps Engineering Laboratories at Fort Monmouth, New Jersey.

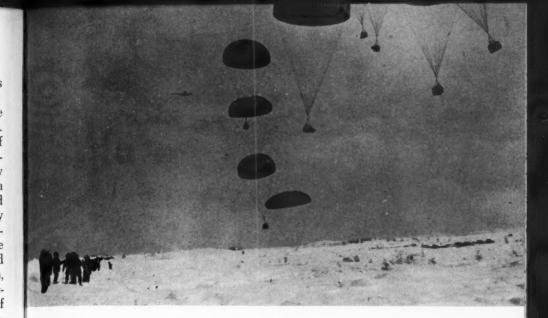
Since the new material is not subject to radiation reaction as is the case with ordinary photographic papers, it could be used militarily for printing photo-graphs in areas affected by atomic radiation. Many other uses are seen for the material, which was discovered by the Ferry Chemical Company of Bedford,

To produce a print, an aluminum plate is coated with the special vinyl,

in an ordinary kitchen oven.

placed under a negative-exactly as in regular photo finishing-and exposed to strong ultraviolet light for five seconds. It then is baked at 320 to 350 degrees F. heat. The entire printing job can be completed in five minutes, compared with nearly an hour required to develop a dry, high quality print using conventional paper and methods. No darkroom is necessary because the vinyl is sensitive only to the ultraviolet light. Refinements now being studied are expected to make the new technique useful to industry and amateurs, since it is possible to develop prints





With mobile warfare concepts calling for swift replenishment of materiel to the fast moving fighting troops, Quartermaster Corps plans improved methods of

SUPPLY FROM THE SKY

B. H. Roffee

IN RECENT STUDIES and experiments, scientists at the Quartermaster Food and Container Institute for the Armed Forces at Chicago, Illinois, working in conjunction with scientists of Headquarters, Quartermaster Research and Development Command at Natick, Massachusetts, and Fort Lee, Virginia, have evolved some dramatic new methods of providing supply from the sky—that is, aerial delivery by dropping of supplies as distinguished from air freight or air cargo.

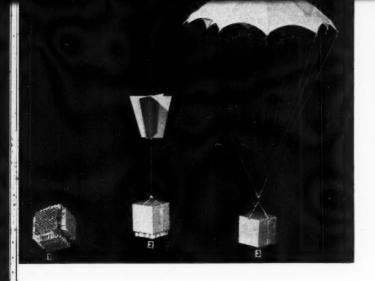
The Institute's studies are divided into two phases—a long-range program dealing with fundamentals such as methods or devices to orient or retard loads during airdrop; energy absorbing material to cushion airdropped supplies at impact; and fragility of items to be dropped. Most of this research is currently being carried out under Quartermaster contracts with universities and private research organizations.

Under the short-range program, the Institute is working on modifications of existing methods of aerial delivery, employing standard equipment where possible. Some of the practical findings are revealed in the pictorial report which follows. The immediate objective—to get more for each delivery dollar *Now*.

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B. H. ROFFEE is Assistant Chief, Research Branch, Quartermaster Food and Container Institute for the Armed Forces, Chicago, Illinois.



FIRST efforts in research were devoted to studies of methods of packaging or preparing supplies for airdrop. An obvious method was to fasten cushioning material on all surfaces of the airdropped package. An improved method is the use of some method of external control such as vanes which "aim" the package so that only the impact surface needs to be protected. This offers an obvious saving of money and time.

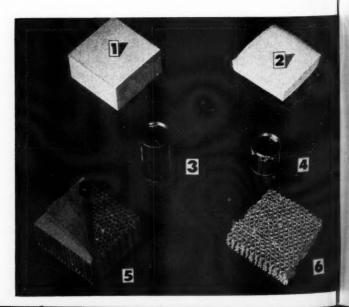
ANOTHER method employs a parachute to limit the drop-velocity to a rate at which the damage to contents of the package will not exceed an acceptable maximum. While obviating use of cushioning material, this method requires large, expensive parachutes plus much packing time.

AS RESEARCH progressed it became evident that a combination of an orienting and a retarding device would prove most acceptable. Parachutes that would drop the loads more swiftly than the 25-feet-per-second standard used for paratroopers would be more effective, since less drift would mean less danger of the load falling into enemy hands.

Search was made for a cushioning material which would crush at a relatively constant force and not return any appreciable amount of "impact" energy to the load, thereby causing excessive rebound and damage.

Many materials were tried—foamed plastics, rubber-based and metallic materials, empty beer cans, and finally a cellular paper-board product known as paper honeycomb—all shown below both before and after impact. Paper honeycomb was finally selected as the most suitable material.

THE advantages of paper honeycomb are many. A volume of it costing 24 cents is five times as efficient as the standard Quartermaster felt shock pad that costs \$2. It can readily be expanded at a ratio of 20 to 1, thus saving greatly on shipping space. The honeycomb also is available in various cell sizes that crush at various force levels adaptable to fragility of airdropped items.

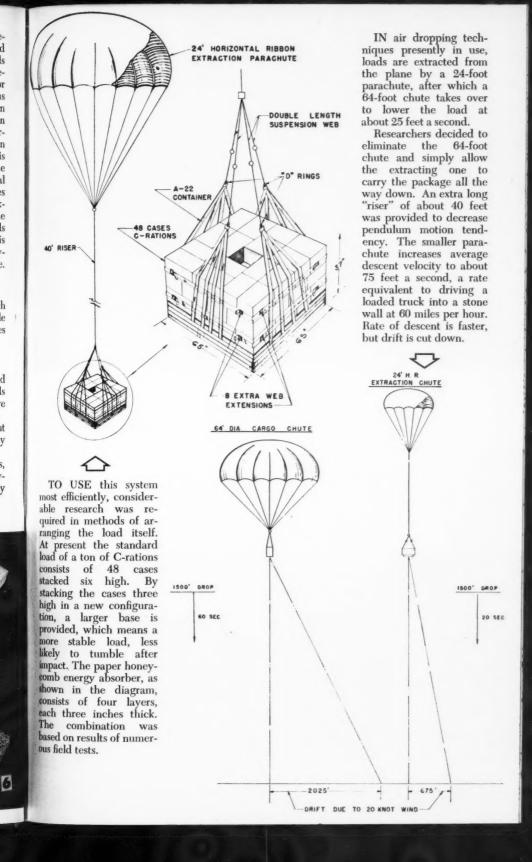


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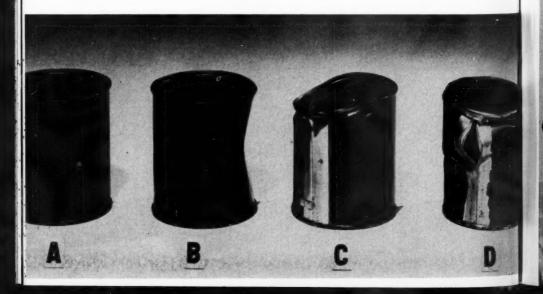
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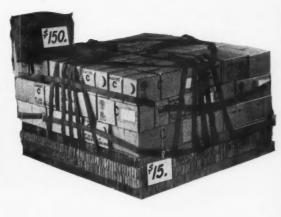
SUPERIORITY of the new aerial delivery system is demonstrated by the very small amount of damage evidenced during recent tests. Inspection is carried out with an x-ray unit which allows individual cases of rations to pass on a conveyor system through a portable van. The operator, examining contents of each case on a screen, can easily determine extent of damage.

DURING early tests only ruptured cans were enumerated—but as improvements in the system were made, the classification was refined. Now the cans are labeled as undamaged (A), dented (B), "crimped" (C), and ruptured (D). The new scale permits a more accurate analysis for comparison of the effectiveness of the systems being tested.



SUPPLY FROM THE SKY





IN ADDITION to the greater efficiency of airdropped loads, considerable savings will be effected. Eliminating the 64-foot parachute, for instance, means the difference between \$555 and the \$150 that a 24-foot chute costs. The paper honeycomb for a ton load costs only \$15.

EVEN more savings are evident when the time of packing the 64-foot chute is compared with that needed for handling the 24-foot item. Since the larger chute weighs 125 pounds, it requires three men to recover one, whereas one man can pick up the smaller chute which weighs only 35 pounds. A higher rate of recovery may thus be anticipated.



Considered a routine matter at Stateside posts, "keeping your powder dry" in Alaska becomes a

PROBLEM —



WITH A DIFFERENCE

Major Ulysses G. Stewart, Jr.

AT MOST posts, camps and stations in continental United States, an Ordnance Officer is assigned to keep a watchful eye on all ammunition, its handling and storage. In Alaska, however, this normally routine matter becomes a problem with a difference.

Each individual unit commander

has his entire basic ammunition supply physically on hand and is charged with its storage, inspection and maintenance. Every troop commander thus finds that he has a direct, major responsibility in this field. Constantly he is made aware that he may be called upon to break out his ammunition and use it at any time, for Alaskan combat units are on a continual alert status.

Complicating the problem is the never-ending battle against terrain

MAJOR ULYSSES G. STEWART, JR., Ordnance Corps, is Chief, Ammunition Division, Office of the Ordnance Officer, Headquarters, United States Army, Alaska. and the elements. Dry cold, wet cold, snow, rain, thaws, ice, volcanic dust and mud are persistent invaders, and Nature seems to unleash them all at once. Thus fighting the battle of munitions maintenance is not only the chore of the Ordnance Officer and his men; it's everybody's fight.

SINCE Japan threatened to invade Alaska 15 years ago, Ordnance men have learned much about ammunition storage in the Territory. So have troop commanders who have served here.

Here storage of ammunition is not just a matter of stacking the stuff and forgetting it. Incompatible items must not be stored together; and adequate space must be available to separate the various categories. And while Alaska is a huge land, it shrinks surprisingly when one is looking for a place to store ammunition. A patch of real estate large enough for proper storage of munitions is at a premium in most areas where troops are stationed.

Terrain features and peculiarities of climate both are obstacles to be overcome. Permafrost is a neverending problem; land which is smooth and hard in winter becomes a quagmire with the spring breakup, for then the permafrost retreats to depths of only three or four feet and doesn't permit the land to drain.

Not only is it difficult to find spots that will stay high and dry all year round, but it is nearly impossible to build access roads into such areas. During the winter months one can drive over any reasonably level ground; in summer much of it is swamp. Even filled roads—and they are expensive to build—disappear in spring with the heaving of the frost.

Use of defilades for ammunition storage early proved to be a poor expedient. They flood in the spring, washing away the ammo boxes or soaking the munitions.

SEVERAL methods were devised to camouflage stacks of openstorage ammunition. One favorite was pyramidal tents. Ammunition was stacked in 16-foot squares as high as the tent wall. Then boxes were pyramided up a few more feet. After erecting the tent over the stack, the top was gathered tightly and let droop. The bottom of the tent was then lashed securely to keep out the wind.

Another method of camouflage was to sod the top of four-foothigh, pyramid-shaped stacks. In most cases this method was good for only short periods, because the sod contained much volcanic ash which hastened the deterioration of crates and rusting of unpainted metal containers; in some rare cases, however, they actually preserved wood and fiber.

Tarpauling are generated

Tarpaulins are generally used to protect ammunition in outside storage, but these must be fastened with painstaking care or arctic winds will tear them free. Snow, too, presents a problem. A covering of snow on the paulin-covered ammunition stacks, followed by a slight thaw and then a freeze, will cement the canvas to the ground. Getting a stiff, icy tarp free of a stack of ammunition in below-zero temperatures requires strong arms, tough fingers, well-placed axe blows and a restrained temper.

In any ammunition storage, dun-



Bunkers that might sink into the ground (above) are largely replaced by Jamesway huts built on platforms as a practical expedient (below).



nage is always a problem, and particularly so in Alaska where stacks must be kept at least six inches off the ground, and an inch of space provided between each layer of munitions cases. On the tundra and other areas where a good lumber supply is lacking, it has been found that small arms ammunition boxes filled with dirt will do the trick.

OUTSIDE storage is still used by many outfits in Alaska, but the search for a better method continues. One of the earliest tried was a type of bunker. Units dug a hole, built a framework over it, and covered it with sandbags.

It didn't work.

It was fine in winter, but when the thaw set in, it almost sank out of sight, drowning the ammunition.

After considerable experimentation and effort, ammunition

bunkers were improved—but at best they were continually damp. Boxes mildewed, metal rusted, black powder trains in fuzes became inoperable, and in general everything went to pot, necessitating increased inspection and care. Also, the bunkers themselves were difficult to work in, so that frequently two men were required to do the work that could be handled more expeditiously by four.

TODAY for the most part, the storage of ammunition in bunkers has been discontinued, except by a few units which have access to well-drained terrain. It is recognized of course, that under combat conditions bunkers would afford the desired protection, mainly because the ammunition would not be stored long enough to get soaked into uselessness.

While Quonset huts can be used

for ammunition storage, they are relatively scarce, and therefore normally reserved for shelter of more sensitive items.

Certain VT fuzes, for example, may not function when temperatures get below minus 20° F. This is no particular problem with antiaircraft units, which are in semipermanent installations and can keep their VT fuses in a "warm room." But the field artillery commander, who may hit the road in mid-winter and have no warm space larger than the cab of a truck for 12 to 18 hours, faces a real problem—one which has not yet been satisfactorily solved.

Compatibility and the quantitydistance safety factor is a continuing problem in unit storage. Most outfits in Alaska simply do not have sufficient storage space to disperse the various types of ammunition as required by safety criteria. Unit commanders and Ordnance inspectors are therefore engaged in continuous planning for ammunition storage. Local conditions are under constant study so that ammunition may be stored as safely as possible, secure from the vicissitudes of wind, water and weather, yet accessible for any emergency.

For this reason commanders of combat elements in Alaska will be faced for a long time to come with an additional duty—Ordnance Ammunition Officer for their respective units.

Air-Transportable Arctic Shelter



A NEW TYPE Arctic shelter which incorporates latest methods of simplified construction, insulation, and ventilation has been developed by the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Virginia. It is being adopted following highly successful tests at Fort Churchill, Canada, and Big Delta, Alaska.

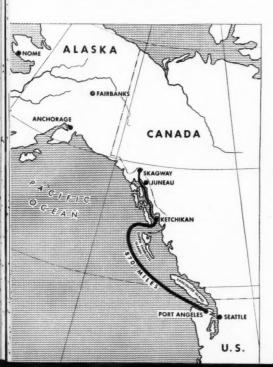
Capable of withstanding sustained

winds of up to 100 miles an hour and snow loads of 75 pounds per square foot, the new type building will be used as barracks, communications shelter or first aid station in far northern regions. The new building can be air-dropped, and assembled in 65 man-hours by unskilled troops working in temperatures of 35 degrees below zero. A modified design was used in the Navy's Antarctic expedition.

NEW CABLE LINK TO ALASKA

A VITAL new communications link to the growing Territory of Alaska is now a working reality since the U. S. Army Signal Corps and the Bell Telephone System opened to public service an underwater telephone cable system reaching some 1,250 miles from Port Angeles, Washington, to Skagway, Alaska.

The new system links two major projects, one by the Long Lines Department of the American Telephone and Telegraph Company, extending 870 miles northward from Port Angeles, the other a 400-mile cable provided by the Alaska Communication System, operated by the Army Signal Corps.

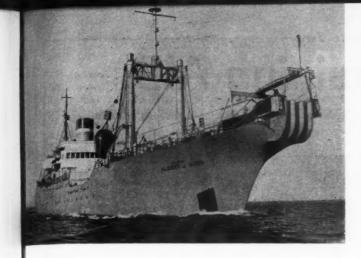


The AT&T project consists of twin cables containing built-in amplifiers in the ocean depths, while the 400-mile cable of the ACS is a single submarine unit stretching along the inland waterway off the southern coast of Alaska. The ACS cable utilizes amplifying stations on islands or points of land that dot the area. AT&T segment's built-in amplifiers are similar to those used with the transatlantic telephone cable which went into service last summer.

Capable of carrying 36 conversations at one time, the Alaska cable system took two years to build at a cost of \$20,000,000. It will be used to supplement existing radiotelephone and land line facilities operating between continental United States and Alaska since 1937. (See "Lifeline to the North," November 1954 Digest.)

IN EFFECT, the cable more than doubles the existing capacity of radio and land lines. The new system performs with the clarity and reliability of the best Stateside telephone lines, and will add to the flexibility, security and reliability of U. S.-Alaska facilities.

New cable terminal stations had to be installed to provide power one at Port Angeles, built by AT&T; the other at Ketchikan, built by ACS. At Juneau and Skagway, Alaska, the existing ACS in-

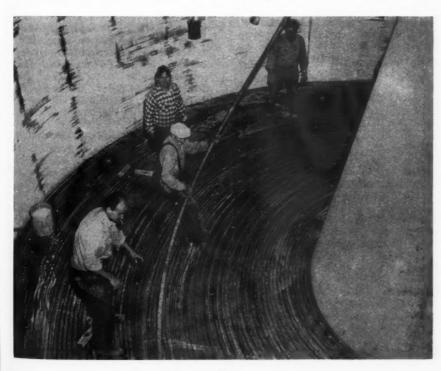


Over the bow sheaves of the Army cableship went some 1,500 miles of cable during laying of the deep sea segment of the new system.

stallations had to be modified to accept the added equipment.

Laying of the Ketchikan-Skagway portion of the cable was undertaken by the ACS during the summer of 1955 while the undersea wires between Ketchikan and Port Angeles were laid during the past summer by AT&T. The deep sea cable was laid by the *Albert J. Myer*, a U. S. Army Transportation Corps vessel.

Cable is loaded into one of the storage tanks in preparation for the expedition from Port Angeles to Ketchikan, as shown in map at left.



Training AIDs

Keep your organization current with the latest training materials by referring to this section in each issue.

TRAINING LITERATURE

While the following new literature will be published shortly, units are cautioned *NOT* to requisition copies until receipt of automatic initial distribution or the items are listed in DA Pamphlet 310–3.

Guidance System, Field Artillery Missile, Corporal. This new 6-series field manual covers individual duties in the Corporal guidance platoon, section drills, methods of inspection, methods of decontamination and destruction, safety, and minimum training requirements.

Field Artillery Missile, Corporal. This new FM 6-(), designed as a companion to the above new manual, covers development and operation of an efficient Corporal firing platoon.

Military Petroleum Pipeline Systems (Terminals.) This new manual (TM 10-1110) is a reference and training guide covering operation of terminals in the Army's petroleum pipeline system.

New DA Pamphlets. The following new pamphlets have been approved for printing:

DA Pam 21-86, Helpful Hints for Personnel Ordered to the Far

DA Pam 27-1, Treaties Governing Land Warfare.

TRAINING AIDS

Training Films recently released for distribution include:

The Communist Weapon of Allure. This 36-minute film (AFIF 75) explains the methods used by the Communists to gain converts by appealing to four basic human hungers—the hunger to belong; hunger for recognition and status; hunger for leadership; and the hunger to be led.

Mission of the United States Navy. In this film (OC-11) the Chief of Naval Operations discusses the mission of the U. S. Navy with a group of officers attending the Armed Forces Staff College. Topics covered include views on sea-

based fighting equipment compared with land-based firepower; the possibility of an all-nuclear propelled Navy within the next decade; and the Navy's role in air defense of United States.

Wounds of the Extremities. This film (Part II of PMF 5305) illustrates eight different wound cases at a forward hospital in Korea to demonstrate techniques in cleaning wounds, and removing devitalized tissue and other foci of infection.

You in Japan. AFIF 78—a study of Japan aimed at the American servicemen—presents a pictorial tour of Japan, highlighting that country's political, economic, social, religious, and military aspects.

ARMY EXTENSION COURSES

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The following subcourses have been approved for publication by Head-quarters Continental Army Command:

The 75-mm Antiaircraft Gun (Skysweeper), Mount T69 and Fire Control, Subcourse 44 (30-27). The Artillery and Guided Missile School. Characteristics, capabilities, and operating principles; functions of major components.

Tactical Employment of Smoke. Subcourse 53 (30-9). Chemical Corps School. Mission, functions, capabilities, organization, equipment and training of smoke generator units; techniques of employing the various types of smoke screens in forward-areas, amphibious, and airborne operations, and in operations under special conditions.

Military Affairs IX (Commissioned Officers II), Subcourse 54. The Judge Advocate General's School. A study of the appointment, status and promotion of commissioned officers.

Defense of Rear Areas, Subcourse 80. Adjutant General's School. Problems of rear area defense; principles of perimeter defense; planning rear area defense, sabotage, guerilla-type warfare.

Command and Staff Procedures I, Subcourse 57. Adjutant General's School. Staff actions and procedures; duties and responsibilities of the general staff.

Radiological Agents, Subcourse 28. Chemical Corps School. Introduction to Radiological Warfare to include nature and types of radiation, measurement, concepts of dose-rates and dosage, detection of RW agents, determining time of stay in contaminated area.

Corps in Offensive Operations, Subcourse 28. Command and General Staff College. Principles and fundamental command decisions involved in the employment of an army corps in the penetration of an organized position and an envelopment to include the development of an operation concept, operation plan, and the conduct of a penetration and subsequent envelopment. Command and staff functions during the planning and execution phases are emphasized.

Personnel Policy Briefs

TARGET date for selection of a limited number of outstanding officers for Regular Army integration under provisions of the Regular Army augmentation plan has been changed from June 1958 to June 1957. There will be no change in basic eligibility requirements or application procedures.

Under the current augmentation program, the Army expects to appoint some 7,000 officers to Regular Army status during the next two years. They will be selected from the Reserve, both active and inactive, National Guard, former officers, and qualified specialists not now holding commissions but with scientific backgrounds.

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THE current active duty program for reserve officers includes provisions for release from active duty of commissioned officers upon their becoming eligible for retirement in accordance with the provisions of paragraph 6, AR 635-130 (20 years active Federal service, 10 of which must be active commissioned service). Officers serving on term categories expiring subsequent to the date they become eligible for retirement will not be released from active duty under this program until completion of the unexpired portion of such categories. Officers serving on active duty under the provisions of AR 135-215 without specification as to termination date of active service are to be released upon becoming eligible for retirement. However, prior to release under this program all such officers are automatically considered for further voluntary retention on active duty.

NORMALLY, the annual screening of officer files within career management branches commences in August of each year, with final selections for retention on active duty normally being completed in January in order to afford all officers a minimum of six months' notification of their selection or non-selection. Retention on active duty under this program does not affect an officer's volunteer retirement eligibility.

IN selecting officers to attend future Senior Service Colleges (National War College, Industrial College of the Armed Forces, and the Army War College), the Army has adopted a procedure which provides for a Board to select the most highly qualified officers without regard to component and without regard to branch, except that 25 percent of the annual college input must conform to prescribed minimum branch selections.

THE Army will continue to send many officers to civilian universities to pursue courses of instruction on the graduate level in fields of particular importance to the Army. However, there is still a shortage of qualified applicants for courses in the physical sciences, especially in nuclear physics and aeronautical engineering. All officers of the combat arms who are qualified to pursue graduate studies in the physical sciences may apply under provisions of AR 350–205.

-Atomic Sentinel System



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A WARNING SYSTEM to protect important underground military and civilian installations in the event of a surprise nuclear attack has been developed by the Army Signal Corps Engineering Laboratories at Fort Monmouth, New Jersey.

Officially designated the Radiological Defense Warning System, the device is already at work at one major military headquarters. Installation is planned at important U. S. Air Force bases. Besides being used by Civil Defense authorities at strategic locations throughout the country, it also could protect key industrial plants.

Consisting of electronic components costing about \$500, the system detects any atomic or hydrogen bomb explosion endangering an installation. It trips relays that instantly sound warning horns, close blast doors, turn off gas lines, start radiologically filtered ventilation systems and trigger a series of other protective measures.

The new automatic system does away with human decision or delay that could spell the difference between survival and disaster.

To avoid any chance of failure, the system uses three different detectors, any one of which is tripped by nuclear detonation, but not by any other type of explosion. Warning instruments include a gamma ray detector, a thermal detector which responds to infrared radiation from fission or fusion, and a blast pressure detector. An added feature is a poison gas detector.

The detectors themselves, small aluminum cylinders set on platforms atop steel towers, are wired to a control board underground. Activation of any detector flashes a warning light on the board. If the board is unattended, electric relays put final defense measures in motion, and "button up" the protected location.

The system is immune to false alarms caused by high-explosive blasts or thunderstorms. Detectors ignore cosmic ray or other atmospheric radiation.



PARAGRAPHS

from



The Pentagon and the Field

Now in formal operation is the Military Subsistence Supply Agency (MSSA), established under a Department of Defense single manager assignment to provide the Armed Services with their food supplies. The new agency occupies the same quarters as those of the organization it replaces—Headquarters, Quartermaster Market Center System in Chicago. Ten Market Centers (which have been redesignated as Military Subsistence Market Centers) and field purchasing offices throughout the United States, will operate under the new agency.



New names for use with the Nike family of antiaircraft weapons systems have officially been designated by the Department of the Army and approved by the Joint Coordinating Committee on Guided Missiles, Department of Defense. Hereafter Nike I will be known as Nike-Ajax; Nike B as Nike-Hercules; and Nike II as Nike-Zeus.



Major General P. D. Ginder has been named Assistant Chief of Staff for Reserve Components under a reorganization of the Department of the Army staff. The new agency combines certain existing general staff functions for exclusively reserve component matters under one staff head. Relationship of the National Guard Bureau with the Secretary of the Army and the Chief of Staff remains unchanged; the Chief, Army Reserve and ROTC affairs will continue as the operating agency for the Army Reserve at departmental level.



Army Table of Distribution units have received new designations to insure uniformity of terminology. Former numbered station complements and headquarters now are designated U. S. Army Garrison, with the name of the appropriate station; inactive installations and caretaking detachments are designated as U. S. Army Garrison (Inactive), while station complements, Class I, are designated as numbered U. S. Army Support Elements.



Savings of more than a half million dollars annually in the Army Signal Corps procurement program are expected through use of microfilm "windows" in tabulating cards used for transmitting engineering drawings. More than 300,000 drawings microfilmed at Fort Monmouth, New Jersey, are being mounted in the tabulating aperture cards. They will be used at various installations for reference in repair and overhaul of signal equipment and for procurement purposes, replacing the old costly method of making full-sized paper reproductions of drawings.



Two million dependents of uniformed servicemen now are eligible for civilian medical care under provisions of the Dependents' Medical Care Act. The Army is executive agency for the entire program. So far, 42 states, Hawaii, Puerto Rico and Alaska have arranged contracts under which civilian physicians will be able to attend military dependents.



Latest volume prepared by the Office of the Chief of Military History is entitled Korea 1951-1953. Dealing with the period from the grim days of January 1951 when Chinese Communist forces threatened to drive United Nations troops out of Korea, until signing of the Armistice in July 1953, the book comprises 71 pages of text and more than 300 pictures, representing the combined

work of John Miller, Jr., Major Owen J. Carroll and Margaret E. Tackley. The work is available at \$2.50 a copy from Superintendent of Documents, Government Printing Office, Washington 25, D. C.



A program for appointment of Reserve warrant officers, with concurrent call to active duty of individuals qualified in certain critical specialties, is outlined in Circular 601-25. Critical specialties listed are 0820, Master or Mate; 1121, Artillery Electronic Fire Control Assistant; 1184, Guided Missile Integrated Fire Control Assistant: 1185, Guided Missile Materiel Assistant; 1981, Rotary Wing Aviator; 4806, Fire Control Maintenance and Repair Officer; 4811, Guided Missile Systems Maintenance Officer, Nike; 4812, Guided Missile Systems Maintenance Officer, Corporal. Qualified enlisted personnel are encouraged to apply for appointment.



Army birds and animals are giving way before the inexorable march of electronic and mechanical progress.

After nearly half a century of employment, the 4th Field Artillery Battalion (Pack), famed Army mule unit, will become the experimental 4th Airphibious Field Artillery Firing Unit, equipped with helicopters and the latest airtransportable artillery weapons.

Discontinuance of the Signal Corps

Discontinuance of the Signal Corps pigeon training activity at Fort Monmouth, New Jersey, also has been announced. The last 1,000 pigeons are being sold to fanciers throughout the

country.



Information has been established as a new field of Army officer specialization under the provisions of Army Regulations 616-140, which previously established programs on atomic energy, research and development, intelligence, logistics, civil affairs/military government, foreign areas and Army aviation. Although each pro-

gram contains slight variations, they insure repetitive but not consecutive tours within the area of specialization through the twenty-first year of service with the requirement for maintenance of branch qualification by appropriate branch assignments.



AR 350–23 dated 15 October 1956 announces the new Foreign Area Specialist Training Program. No longer under monitorship of the Assistant Chief of Staff for Intelligence, the new program, to be operated by The Adjutant General, is expected to provide controlled duty assignments in a wider area of utilization than heretofore. Another significant change is the opening up of the program in all areas to Reserve officers. In the past, only the Russian area of the program was open to other than Regular Army officers.



The Office of the Chief of Psychological Warfare, United States Army, has been redesignated Office of the Chief of Special Warfare, United States Army. At the same time, the name of the Psychological Warfare Center, Fort Bragg, North Carolina has been changed to Special Warfare Center. The Psychological Warfare School at the Center becomes the Special Warfare School.



Flight training will begin during the current academic year for some 400 college seniors enrolled in the Army Reserve Officers' Training Corps. Designed to interest more cadets in careers in Army Aviation, the new program also will permit earlier screening of the individual cadet's adaptability for flying while he still is in student status. The program will go into effect in 40 educational institutions.



Twelve portable dental clinics, complete with dentists and technicians, now are available for use in remote military for Ion me rea ing to

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areas of the United States. The newly developed 30-foot mobile vans can operate either independently or from fixed electrical and water outlets. They are equipped with air-conditioning, laboratory, X-ray and a two-chair operating room.



Sharpe General Depot, Stockton, California, has been named site of the Army Ionizing Radiation Center. The experimental center will include a nuclear reactor to study the application of ionizing radiation in food preservation, and to conduct other projects of interest to the Department of Defense. Operations will be directed by the Quartermaster Research and Development Command.

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The Transportation Research and Development Command, at Fort Eustis Virginia, has been redesignated as the Transportation Research and Engineering Command (TRECOM).



A new Government-wide program has been instituted governing local and national health, welfare and emergency relief fund-raising. Solicitation for such organizations will be conducted in accordance with the new program, outlined in AR 600–29, which calls for cooperation, limiting the number of annual solicitations to not more than three, and authorizing recognized agencies to solicit on the basis of agreed goals and quotas.



Army Green has been designated as the official name for the new service uniform. In specifications for uniform material, the designation AG44 will be used.



Dates and sites for 1957 All-Army sports championships, as announced in Department of the Army Circular 28–32, include: boxing, 3-8 March, Fort Campbell, Kentucky; wrestling, 10-15 March, Fort Bliss, Texas; basketball, 18-23 March, Fort Monmouth, New Jersey; bowling, 2-4 April, Fort George G. Meade, Maryland; volleyball, 1-5 May, Fort Benning, Georgia; track and field, and triathlon, 13-15 June, Fort Hood, Texas; swimming and diving, 22-24 July, Fort Crowder, Missouri; golf and tennis, 12-17 August, Fort Ord, California; softball, 5-9 September, Fort Leonard Wood, Missouri; and baseball, 16-20 September, Fort Knox, Kentucky.

Official Notes

ARMY AVIATION OFFICERS. AR 611-110 establish procedures for recruitment and selection of officers for Army aviation flight training.

AERIAL FLIGHTS. AR 95-15 prescribe Department of the Army policies governing parachute jumping and flying of Army personnel. AR 95-5 applies specifically to Army aviation policies.

MOBILIZATION DESIGNATIONS. AR 140-145 prescribe procedures for selection and designation of Army Reserve officers as mobilization designees to mobilization designation tables of distribution listed in the Army Reserve Troop Program.

MANPOWER UTILIZATION CONTROLS. AR 616-7 prescribe responsibilities of the separate agencies of the active Army Establishment in supervising and administering controls for effective manpower utilization.

AIRBORNE TRAINING. AR 611–7 establish procedures for selection, processing, and assignment to training of individuals volunteering for airborne training.

RESERVE DUTY TRAINING. AR 140-250 govern training assemblies and periods of appropriate duty, pay and allowances of members of the Army Reserve.

REGULAR ARMY ENLISTMENTS. AR 601-215 prescribe options for enlistment and reenlistment.

ENLISTED ASSIGNMENT. AR 611–220 prescribe procedure for submission of application and the selection of enlisted personnel for assignment to military missions, commissions, and advisory groups.

PERSONNEL SELECTION. AR 611–22 prescribe criteria for selection of personnel for duty at Fort Churchill, Manitoba, Canada, along with information on facilities and accommodations available there.

SERVICE CLUBS. AR 28-125 apply to all commands for administration of service club facilities and director personnel assigned to the service club program, and/or activities within and outside the continental United States.

ADVANCED MANAGEMENT TRAINING. AR 350–210 cover selection of officers for advanced management training under provisions of AR 350–200. The training is conducted at two civilian educational institutions—Advanced Management Program of the Graduate School of Business Administration at Harvard

University, and Management Problems for Executives at the University of Pittsburgh.

BASIC PAY CREDIT. AR 35-1110 prescribe the services to be considered in computing the cumulative years to be counted by members of the uniformed services for determining the amount of basic pay which they are entitled to receive upon completion of such years of service.

OFFICER EFFICIENCY REPORTS. AR 623–105 describe procedures for officer efficiency reporting and provide detailed instruction for preparing and forwarding Officer Efficiency Reports (DA Form 67–4).

ARMY INTELLIGENCE SCHOOL. AR 350–106 cover the mission of the Army Intelligence School, its organization and functions, direction and control, operations, courses and instruction.

PERSONNEL SELECTION. AR 611-258 prescribe a uniform procedure for submitting to The Adjutant General requests for assignment instructions for all enlisted personnel in the replacement stream who are immediately available for assignment.

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New Chemical Corps Flame Thrower Goes Airborne

NOW IN FINAL STAGES of development by the Army Chemical Corps is a lightweight, compact one-shot flame thrower which can be "jumped" with a paratrooper as part of his equipment.

Considered particularly useful for close-in combat requiring reduction of bunkers or other emplaced positions where high explosives are not effective, the unit also is regarded as ideal for defensive situations, such as flank envelopment. Equipped with a remote firing device, it can be adapted for use as a booby trap.

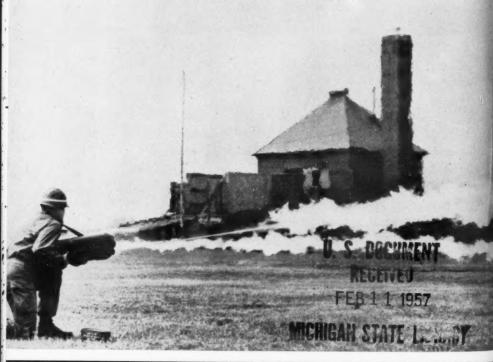
CAPABLE of using either thickened or unthickened fuel, the new flame thrower is rugged, waterproof, safe to use and easy to carry. It weighs $26\frac{1}{2}$ pounds in comparison to the 72 pounds for the multiple-shot type. Fuel capacity is two gallons, as compared with four and a half gallons for the standard type.

The new flame throwing device was designed by the Aerojet General Corporation of Azusa, California, under a development contract with the Chemical Warfare Laboratories, Army Chemical Center, Maryland.

Technical advice and engineering supervision were provided by experts of the Army Chemical Corps Research and Development Laboratories, working closely with the contractor in designing the item and producing prototypes.

(For view of the new lightweight flame thrower in action, see back cover.)





ARMY POWER-A KEY TO PEACE